

Annual Report of Operations for Year 2020

To comply with NPDES General Permit No. WAG130000 for Federal Aquaculture Facilities and Aquaculture Facilities Located in Indian Country within the Boundaries of the State of Washington

NPDES # for your Facility:	
13-0012	
Facility & Owner Information	n
_{Facility Name:} Bernie Kai Kai Gobin Salmon Hatch	ery
Operator Name (Permittee): Tulalip Tribes of Washington	
Address: 6406 Marine Drive Tulalip, WA 98271	
Email: mcrewson@tulaliptribes-nsn.gov	Phone: 360-716-4626; (425) 754 0955
Owner Name (if different from operator): Same	, (120) / 0 / 0000
Email: Same	Phone: Same
	Yes □ No
las the BMP Plan been reviewed this year? boos the BMP Plan fulfill the requirements of the ummarize any changes to the BMP Plan since the book and reviewed in 2020 for NOI upda	Yes □ No
las the BMP Plan been reviewed this year? Does the BMP Plan fulfill the requirements of the summarize any changes to the BMP Plan since the	Yes No General Permit? Yes No he last annual report. Attach additional pages if pages are

Operations and Production

Total harvestable weight produced in the past calendar year in pounds (lbs): 56,844lbs weight gain, 82,029 lbs total biomass Pounds of food fed to fish during the maximum month: 8,389 lbs (June)

List the species grown or held at your facility and the annual production of each in gross harvestable weight. If fish were released rather than harvested, list the weight at time of release.

Species	Fish Produced	Receiving Water(s) to which Fish were Released	Month Released/ Spawned
BY18 Coho	29,528	No release/harvests, fish transferred to 13-0013 for release. * wt = biomass transferred	N/A
BY19 Chinook	26,992	No release/harvests, fish transferred to 13-0013 for release. * wt = biomass transferred	N/A
BY19 Coho	24,608	No release/harvest/spawn, remained on station. * wt is calendar year biomass	N/A
BY19 Chum	902	No release/harvests, fish transferred to 13-0014 for release. * wt = biomass transferred	N/A

Fill in the table below with production numbers from the past year. List the **maximum** amount of fish on-site and the maximum amount of food fed **per month**.

Month	Total Fish (lbs)	Fish Feed (lbs)	Month	Total Fish (lbs)	Fish Feed (lbs)
January	24,438	2,369	July	9,278	3,594
February	28,416	3,015	August	10,940	4,102
March	32,059	4,561	September	15,087	3,432
April	33,571	5,563	October	18,019	3,916
May	34,190	6,963	November	24,479	4,620
June	36,365	8,389	December	24,608	396

Additional Comments: * NOTE: NO FISH ARE RELEASED FROM THIS FACILITY (13-0012). ALL SALMON ARE PERIODICALLY TRANSFERRED TO THE OTHER TWO FACILITIES (13-0013 AND 13-0014) FOR RELEASE. THOSE FACILITY WEIGHTS START WHERE THESE LEFT OFF.

Solid Waste Disposal

Describe the solid waste disposed of during the calendar year (including fish mortalities).

Type of Solid Disposed	Date Disposed	Location Disposed
122 Lb dead eggs	Sept Dec. 2020	Offsite burial pit
44 Lb dead fish	Jan Dec. 2020	Offsite burial pit
dditional Comments:		

Fish Mortalities

Include a description and the dates of mass mortalities in the past year (more than 5% per week). Attach additional pages, if necessary. Include total mortalities from all causes.

Date	Cause of Deaths	Steps Taken to Correct Problem	Pounds of Fish
		1	

Noncompliance Summary

Include a description and the dates of no the steps taken to correct the problems.	ncompliance events (including spills), the reasons for the incidents, and
None	pages, it necessary.
	E

Inspections & Repairs for Production & Wastewater Treatment Systems

T		
Date Inspected	Date Repaired	Description of System Inspected and/or Repaired
Periodic/Monthly	None needed	

Aquaculture Drugs and Chemicals

Please indicate whether you used each drug/chemical **during the past calendar year**. Describe the use of each drug/chemical in more detail on the following pages.

Used in the past year?	Drug or Chemical
□ Yes □ No	Azithromycin
□ Yes □ No	Chloramine-T: See additional reporting requirements on page 7
□ Yes □ No	Chlorine
□ Yes □ No	Draxxin
□ Yes □ No	Erythromycin - injectable
□ Yes □ No	Erythromycin - medicated feed
■ Yes □ No	Florfenicol (Aquaflor)
■ Yes □ No	Formalin - 37% formaldehyde: See additional reporting requirements on page 7
□ Yes □ No	Herbicide - describe:
□ Yes □ No	Hormone - describe:
□ Yes □ No	Hydrogen Peroxide: See additional reporting requirements on page 7
□ Yes □ No	lodine: See additional reporting requirements on page 7
□ Yes □ No	Oxytetracycline
□ Yes □ No	Potassium Permanganate: See additional reporting requirements on page 7
□ Yes □ No	Romet
□ Yes □ No	SLICE (emamectin benzoate)
□ Yes □ No	Sodium Chloride - salt
□ Yes □ No	Vibrio vaccine
□ Yes □ No	Other:
⊒ Yes ⊒ No	Other:

Aquaculture Drugs and Chemicals (cont'd)

Brand Name: Treatment	1: Parasite-S	Generic Name: Formalin	(37% formaldehyde)
Reason for use: Control fu	ingus on incubating eg	gs	
☐ Preventative/Prophylactic ☐ As-needed	Total quantity of formulated product per treatment (specify units):2.4-14.7L (8.5 L avq.)	Total quantity of formulated (specify units): 391.6L	product used in past year
Date(s) of treatment: 9/22,24,26,28, 10/1,3,5,7,9,11,	13,15,17,19,21,23,25,27,11/16,18,		Total number of treatments in past year:
Maximum daily volume of treated water: 3,150 gal	Treatment concentration (specify units): 1,667 mg/L formalin	Duration and frequency of treat 15 minutes, 1X/day	
Method of application:	☐ Static Bath ☐ Flow-through	☐ Medicated Feed☐ Other (describe):	
Location in facility chemical was used (check all that apply):	☐ Raceways ☐ Incubation building	☐ Ponds ☐ Off-line settling basin	☐ Other (describe):
Where did water treated with this chemical go?	☐ Discharged w/o treatment☐ Settling basin	☐ Septic System ☐ Publicly owned treatment	Other (describe): * formalin detention tank
(check all that apply): Provide any additional informat	ion about how this chemical was i	sed and/or special pollution and	
(check all that apply): Provide any additional informat * We did not fill out the flow thru sheet for these Treated incubation effluent goes into formalin di provide additional ~7.5- to 10-fold dilution result	ion about how this chemical was t egg treatments because we measured the concen llution tanks that provide – 40- to 60-fold dilution. V ing in final concentration (C) in effluent <1 mg/L or	ised and/or special pollution pre- ration directly with test strips and bench chemis /e reconfigured the drain lines from the tanks to 10>C >1 at highest level in effluent.	evention practices during use: stry and confirmed we are well within limits. enter other existing untreated effluents that
(check all that apply): Provide any additional informat 'We did not fill out the flow thru sheet for these Treated incubation effluent goes into formalin d provide additional ~7.5- to 10-fold dilution result Brand Name: Treatment 2	ion about how this chemical was using treatments because we measured the concentium tanks that provide - 40- to 60-fold dilution. Ving in final concentration (C) in effluent <1 mg/L or 2: Parasite-S	ised and/or special pollution pre- ration directly with test strips and bench chemis /e reconfigured the drain lines from the tanks to 10>C >1 at highest level in effluent.	evention practices during use:
(check all that apply): Provide any additional informat 'We did not fill out the flow thru sheet for these Treated incubation effluent goes into formalin d provide additional ~7.5- to 10-fold dilution result Brand Name: Treatment 2	ion about how this chemical was t egg treatments because we measured the concen llution tanks that provide – 40- to 60-fold dilution. V ing in final concentration (C) in effluent <1 mg/L or	ised and/or special pollution pre- ration directly with test strips and bench chemis /e reconfigured the drain lines from the tanks to 10>C >1 at highest level in effluent.	evention practices during use: stry and confirmed we are well within limits, enter other existing untreated effluents that (37% formaldehyde)
(check all that apply): Provide any additional informat *We did not fill out the flow thru sheet for these Treated incubation effluent goes into formalin di provide additional ~7.5- to 10-fold dilution result Brand Name: Treatment 2 Reason for use: External par	ion about how this chemical was to egg treatments because we measured the concentration (and the concentration (but in a final concentration (c) in effluent <1 mg/L or concentration (c) in effluent <1	sed and/or special pollution pre ration directly with test strips and bench chemis for reconfigured the drain lines from the tanks to 10>C >1 at highest level in effluent. Generic Name: Formalin Total quantity of formulated present in the strip is the strip in the strip is the strip in the strip is the strip in the strip in the strip is the strip in th	evention practices during use: stry and confirmed we are well within limits, enter other existing untreated effluents that (37% formaldehyde) roduct used in past year Total number of treatments in past year:
(check all that apply): Provide any additional informate We did not fill out the flow thru sheet for these Treated incubation effluent goes into formalin diprovide additional ~7.5- to 10-fold dilution results. Brand Name: Treatment 2 Reason for use: External part Preventative/Prophylactic As-needed Date(s) of treatment:	ion about how this chemical was to egg treatments because we measured the concentration (and the concentration (but in a final concentration (c) in effluent <1 mg/L or concentration (c) in effluent <1	sed and/or special pollution pre ration directly with test strips and bench chemis for reconfigured the drain lines from the tanks to 10>C >1 at highest level in effluent. Generic Name: Formalin Total quantity of formulated present in the strip is the strip in the strip is the strip in the strip is the strip in the strip in the strip is the strip in th	evention practices during use: stry and confirmed we are well within limits enter other existing untreated effluents that (37% formaldehyde) roduct used in past year Total number of treatments in past year: 3 X 4 raceways = 12
(check all that apply): Provide any additional informate We did not fill out the flow thru sheet for these Treated incubation effluent goes into formalin diprovide additional ~7.5- to 10-fold dilution results. Brand Name: Treatment 2 Reason for use: External part. Preventative/Prophylactic As-needed Date(s) of treatment: 6/1, 3, 5 Maximum daily volume of treated water:	ion about how this chemical was to agg treatments because we measured the concentiultion tanks that provide - 40- to 60-fold dilution. Ving in final concentration (C) in effluent <1 mg/L or 2: Parasite-S asites on fish - Trichodina Total quantity of formulated product per treatment: 8LX3treatmentsX4raceways Treatment concentration (specify units):	Seed and/or special pollution pre- ration directly with test strips and bench chemis te reconfigured the drain lines from the tanks to 10>C >1 at highest level in effluent. Generic Name: Formalin Total quantity of formulated prescription (specify units): 961 Duration and frequency of treat 8L X 3treatments X 4raceways X 4hours	evention practices during use: stry and confirmed we are well within limits enter other existing untreated effluents that (37% formaldehyde) roduct used in past year Total number of treatments in past year: 3 X 4 raceways = 12
(check all that apply): Provide any additional informat We did not fill out the flow thru sheet for these Treated incubation effluent goes into formalin d provide additional ~7.5- to 10-fold dilution result Brand Name: Treatment 2 Reason for use: External par Preventative/Prophylactic As-needed Date(s) of treatment: 6/1, 3, 5 Maximum daily volume of reated water: 86,640 gal (90.25 X4	ion about how this chemical was to egg treatments because we measured the concentiution tanks that provide - 40- to 60-fold dilution. Varing in final concentration (C) in effluent <1 mg/L or 22: Parasite-S asites on fish - Trichodina Total quantity of formulated product per treatment: 8LX3treatmentsX4raceways Treatment concentration (specify units): 25 mg/L	Seed and/or special pollution presention directly with test strips and bench chemister reconfigured the drain lines from the tanks to 10×C >1 at highest level in effluent. Generic Name: Formalin Total quantity of formulated presenting units: (specify units): 9661 Duration and frequency of treat 8L X 3treatments X 4raceways X 4hours	evention practices during use: stry and confirmed we are well within limits enter other existing untreated effluents that (37% formaldehyde) roduct used in past year Total number of treatments in past year: 3 X 4 raceways = 12 ment(s):

- If a water-borne treatment was used during the calendar year, Permittees must include detailed records/calculations as an attachment to this Annual Report in order to demonstrate how the maximum effluent concentrations of solution and active ingredient were calculated for each chemical.
- EPA recognizes that water-borne treatments may vary in the volume of the vessels treated, concentration, quantity of product, etc. Permittees must provide the information listed in the following tables for a reasonable worst case (i.e., maximum effluent concentration) scenario, not for each individual treatment.
- Permittees must submit this information and calculate the maximum effluent concentration for each water-borne chemical used during the past calendar year.
- See also Appendix D for the Chemical Log Sheet.

Sta	tic Bath Treatments	
Tank Volume		Liters
Desired Static Bath Treatment Concentration		
Volume of Product Needed		μg/L
Maximum Effluent Concentration of:	Solution:	Liters Product
1) Solution and 2) Active Ingredient	Active Ingredient:	Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day		Specify Units
Maximum % of Facility Discharge Treated		Speakly Strike
		% of Total Discharge

TREATMENT 2 Flow-	-Through Treatments	
Tank Volume	67,960	Liters
Calculated Flow Rate	1,367	Liters/Minute
Duration of Treatment	240	Minutes
Desired Flow-Through Treatment Concentration of Product	<25	µg/L
Amount of Product to Add Initially	0	Liters Product
Amount of Product to Add During Treatment	133	mL/Minute
Total Volume of Product Needed	32	Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution: <25 mg/L formalin Active Ingredient: 9.3 mg/L formaldehyde	Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day	3,386,800 gallons per day	Specify Units
Maximum % of Facility Discharge Treated	2.56% % of	Total Discharge

Aquaculture Drugs and Chemicals (cont'd)

Brand Name: Transfer				
reatment	3: Parasite-S	Generic Name: Formalin (37% formaldehyde)		
Reason for use: External pa	rasites on fish - Ichthyophth	nirius multifiliis		
☐ Preventative/Prophylactic ☐ As-needed	Total quantity of formulated product per treatment (specify units) 20.9LX10treat'sX4raceways	Total quantity of formulated (specify units): 836.8L	product used in past year	
Date(s) of treatment: 6/23/20 - 7/2/20 (10 days	3)		Total number of treatments in past year: 10 X 4 raceways=40	
Maximum daily volume of treated water: 110,640 gal 461gpm	Treatment concentration (specify units): 25 mg/L formalin	Duration and frequency of treat 20.9L (4-hour treatment) X 10 treatment		
Method of application:	☐ Static Bath ☐ Flow-through	☐ Medicated Feed ☐ Other (describe):		
Location in facility chemical was used (check all that apply):	Raceways Incubation building	☐ Ponds ☐ Off-line settling basin	Other (describe):	
Where did water treated with this chemical go? (check all that apply):	■ Discharged w/o treatment □ Settling basin	☐ Septic System ☐ Publicly owned treatment works	☐ Other (describe):	
onp treatments over 4 flour	rs at 25mg/L. Effluent conc. a	assumed significantly <25 p	pm if ANY organic binding	
Brand Name: Treatment 4	1: Parasite-S	Generic Name: Formalin	(37% formaldehyde)	
	The State of the S	Generic Name: Formalin	(37% formaldehyde)	
Reason for use: Fungus on c	The State of the S	Generic Name: Formalin Total quantity of formulated p (specify units): 36lillers		
Reason for use: Fungus on c Preventative/Prophylactic As-needed Date(s) of treatment:	oho - Saprolegnia Total quantity of formulated product per treatment:	Total quantity of formulated p		
Reason for use: Fungus on o Preventative/Prophylactic As-needed Date(s) of treatment: 7/22, 7/23, 7/24 Maximum daily volume of treated water:	oho - Saprolegnia Total quantity of formulated product per treatment:	Total quantity of formulated p	Total number of treatments in past year: 3 ment(s):	
Reason for use: Fungus on concept Preventative/Prophylactic As-needed Date(s) of treatment: 7/22, 7/23, 7/24 Maximum daily volume of treated water: 126,000 gal	oho - Saprolegnia Total quantity of formulated product per treatment: 11.9L/2h treatmentX3 days) Treatment concentration (specify units):	Total quantity of formulated p (specify units): 36 liters Duration and frequency of treat	Total number of treatments in past year: 3 ment(s):	
Reason for use: Fungus on of Preventative/Prophylactic As-needed Date(s) of treatment: 7/22, 7/23, 7/24 Maximum daily volume of treated water: 126,000 gal Method of application:	oho - Saprolegnia Total quantity of formulated product per treatment: 11.9L/2h treatmentX3 days) Treatment concentration (specify units): 50 mg/L	Total quantity of formulated p (specify units): 36 liters Duration and frequency of treat 11.9L (2-hour treat.) X 3treatments X 1 p	Total number of treatments in past year: 3 ment(s):	
Date(s) of treatment: 7/22, 7/23, 7/24 Maximum daily volume of treated water: 126,000 gal Method of application: Location in facility chemical was used (check all that apply): Where did water treated with this chemical go? (check all that apply):	oho - Saprolegnia Total quantity of formulated product per treatment: 11.9L/2h treatmentX3 days) Treatment concentration (specify units): 50 mg/L Static Bath Flow-through Raceways	Total quantity of formulated p (specify units): 360 liters Duration and frequency of treat 11.9L (2-hour treat.) × 3treatments × 1 p Medicated Feed Other (describe): Ponds Off-line settling basin Septic System Publicly owned treatment works	Total number of treatments in past year: 3 ment(s): ond @525gpm diluted 2.1X to 23.6mg/L	

- If a water-borne treatment was used during the calendar year, Permittees must include detailed records/calculations as an attachment to this Annual Report in order to demonstrate how the maximum effluent concentrations of solution and active ingredient were calculated for each chemical.
- EPA recognizes that water-borne treatments may vary in the volume of the vessels treated, concentration, quantity of product, etc. Permittees must provide the information listed in the following tables for a reasonable worst case (i.e., maximum effluent concentration) scenario, not for each individual treatment.
- Permittees must submit this information and calculate the maximum effluent concentration for each water-borne chemical used during the past calendar year.
- See also Appendix D for the Chemical Log Sheet.

Treatment 3 Static Bath Treatments			
Tank Volume		Liters	
Desired Static Bath Treatment Concentration		Liters	
Volume of Product Needed		μg/L	
M- : Ess		Liters Product	
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution:	Consider Helle	
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day	Active Ingredient:	Specify Units Specify Units	
Maximum % of Facility Discharge Treated		Specify Office	
	% of	Total Discharge	
Flow	-Through Treatments		
Tank Volume	67,960	Liters	
Calculated Flow Rate	1,745	Liters/Minute	
Duration of Treatment	240	Minutes	
Desired Flow-Through Treatment Concentration of Product	<25	μg/L	
Amount of Product to Add Initially	0	Liters Product	
Amount of Product to Add During Treatment	349	mL/Minute	
Total Volume of Product Needed	83.7 liters	Liters Product	
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution: <25 mg/L formalin Active Ingredient: 9.3 mg/L formaldehyde	Specify Units	
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day	3,903,840 gallons per day	Specify Units	
Maximum % of Facility Discharge Treated	2.83% % of	Total Discharge	

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- See also Appendix D for the Chemical Log Sheet.

Sta	tic Bath Treatments	
Tank Volume		Liters
Desired Static Bath Treatment Concentration		5000
Volume of Product Needed		μg/L
Maximum Fffi		Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution:	
ranan di	Active Ingredient:	Specify Units
Minimum Volume of Total (treated + untreat- ed) Water Discharged from the Facility per day		Specify Units
Maximum % of Facility Discharge Treated		opedity office
	% of	Total Discharge
Treatment 4 Flow	-Through Treatments	
Tank Volume	418,083	Liters
Calculated Flow Rate	1,987	Liters/Minute
Duration of Treatment	120	Minutes
Desired Flow-Through Treatment Concentration of Product	50	rinides
		μg/L
Amount of Product to Add Initially	0	Liters Product
Amount of Product to Add During Treatment	100	mL/Minute
Total Volume of Product Needed	12.0 liters	Liters Product
Maximum Effluent Concentration of:	Solution: 23.6 mg/L Formalin	
1) Solution and 2) Active Ingredient	Active Ingredient: 8.8 mg/L Formaldehyde	Specify Units
Minimum Volume of Total (treated + untreat-		opecity offics
ed) Water Discharged from the Facility per day	3,805,920 liters per day	Specify Units
Maximum % of Facility Discharge Treated	3.31%	
		otal Discharge

Aquaculture Drugs and Chemicals (cont'd)

Brand Name: Treatment 5: Parasite-S		Generic Name: Formalin (37% formaldehyde)	
Reason for use: Control fun	gus on coho - Saprolegnia		
☐ Preventative/Prophylactic ☐ As-needed	Total quantity of formulated product per treatment (specify units) 9.2L/2h treatmentX3 c	Total quantity of formulated (specify units): 27.6L	product used in past year
Date(s) of treatment: 8/17, 8/18, 8/19			Total number of treatments in past year:
Maximum daily volume of treated water: 97,400 gal	Treatment concentration (specify units): 50 mg/L	Duration and frequency of trea 9.2L (2-hour treat.) X 3treatments X 1	atment(s): pond @406gpm diluted 2.7X to 18.3mg/L
Method of application:	☐ Static Bath ☐ Flow-through	☐ Medicated Feed ☐ Other (describe):	
Location in facility chemical was used (check all that apply):	☐ Raceways ☐ Incubation building	Ponds Off-line settling basin	☐ Other (describe):
Where did water treated with this chemical go? (check all that apply):	■ Discharged w/o treatment □ Settling basin	☐ Septic System ☐ Publicly owned treatment works	☐ Other (describe):
Provide any additional informa Drip treatments over 2 hour	tion about how this chemical was as 50mg/L. Treated effluent	used and/or special pollution pro (406gpm) diluted 2.7 times i	evention practices during use: nto 1,110gpm to 18.3mg/L
Committee of the second se			
Brand Name: Treatment		Generic Name: Formalin	(37% formaldehyde)
	6: Parasite-S gus on coho - Saprolegnia	Generic Name: Formalin	(37% formaldehyde)
		Generic Name: Formalin Total quantity of formulated p (specify units): 8.2 Litters	
Reason for use: Control fung Preventative/Prophylactic As-needed Date(s) of treatment: 8/24/20	Total quantity of formulated product per treatment:	Total quantity of formulated p	
Reason for use: Control fung Preventative/Prophylactic As-needed Date(s) of treatment: 8/24/20 Maximum daily volume of treated water:	Total quantity of formulated product per treatment:	Total quantity of formulated p	Total number of treatments in past year: 1 tment(s):
Reason for use: Control fund Preventative/Prophylactic As-needed Date(s) of treatment: 8/24/20 Maximum daily volume of treated water: 87,120 gal Method of application:	Treatment concentration (specify units):	Total quantity of formulated p (specify units): 8.2 Littens Duration and frequency of treat	Total number of treatments in past year: 1 tment(s):
Reason for use: Control fund Preventative/Prophylactic As-needed Date(s) of treatment: 8/24/20 Maximum daily volume of treated water: 87,120 gal Method of application: Location in facility chemical was used	Treatment concentration (specify units): 50 mg/L Static Bath	Total quantity of formulated p (specify units): 8.2 Litters Duration and frequency of treat 8.2L (2-hour treat.) X 1treatments X 1 pc	Total number of treatments in past year: 1 tment(s):
Reason for use: Control fung Preventative/Prophylactic As-needed Date(s) of treatment: 8/24/20 Maximum daily volume of	Total quantity of formulated product per treatment: 8.2L/2h treatment Treatment concentration (specify units): 50 mg/L Static Bath Flow-through	Total quantity of formulated p (specify units): 8.2 Litters Duration and frequency of treat 8.2L (2-hour treat.) X 1treatments X 1 pc Medicated Feed Other (describe):	Total number of treatments in past year: 1 trment(s): ond @363gpm diluted 4.3X to 11.5 mg/L

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- EPA recognizes that water-borne treatments may vary in the volume of the vessels treated, concentration, quantity of product, etc. Permittees must provide the information listed in the following tables for a reasonable worst case (i.e., maximum effluent concentration) scenario, not for each individual treatment.
- Permittees must submit this information and calculate the maximum effluent concentration for each water-borne chemical used during the past calendar year.
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Static Bath Treatments		
Tank Volume		Liters
Desired Static Bath Treatment Concentration		Litters
Volume of Product Needed		µg/L
		Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution:	
	Active Ingredient:	Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day		Specify Units
Maximum % of Facility Discharge Treated		Oct. Properties 3
	% of	Total Discharge
Treatment 5 Flow-	-Through Treatments	
Tank Volume	466,389	Liters
Calculated Flow Rate	1,537	Liters/Minute
Duration of Treatment	120	Minutes
Desired Flow-Through Treatment Concentration of Product	50	Timates
		μg/L
Amount of Product to Add Initially	0	Liters Product
Amount of Product to Add During Treatment	76.7	mL/Minute
Total Volume of Product Needed	9.20 liters	Liters Product
Maximum Effluent Concentration of:	Solution: 18.3 mg/L Formalin	
1) Solution and 2) Active Ingredient	Active Ingredient: 6.8 mg/L Formaldehyde	Specify Units
Minimum Volume of Total (treated + untreat-		- 20011 011103
ed) Water Discharged from the Facility per day	2,927,520 gallons per day	C
Maximum % of Facility Discharge Treated		Specify Units
Jointy Districtive Treated	2.98%	Total Dischares
% of Total Discharg		

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Treatment 6 Sta	tic Bath Treatments	
Tank Volume		Liter
Desired Static Bath Treatment Concentration		Liter
Volume of Product Needed		µg/l
		Liters Produc
Maximum Effluent Concentration of:	Solution:	
1) Solution and 2) Active Ingredient	Active Ingredient:	Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day		Specify Units
Maximum % of Facility Discharge Treated		Specify office
	% of	Total Discharge
Flow	-Through Treatments	
Tank Volume	1,189,306	Liters
Calculated Flow Rate	1,374	Liters/Minute
Duration of Treatment	120	Minutes
Desired Flow-Through Treatment	50	rimutes
Concentration of Product	50	μg/L
Amount of Product to Add Initially	0	
Amount of Product to Add During Treatment		Liters Product
	68.3	mL/Minute
Total Volume of Product Needed	8.2 liters	Liters Product
Maximum Effluent Concentration of:	Solution: 11.5 mg/L Formalin	Liters i roudet
1) Solution and 2) Active Ingredient	Active Ingredient: 4.3 mg/L Formaldehyde	Specify Unite
Minimum Volume of Total (treated + untreat-	- I offidide flyde	Specify Units
ed) Water Discharged from the Facility per day	2,927,520 gallons per day	
Maximum 0/ of Facility District		Specify Units
Maximum % of Facility Discharge Treated	2.98% % of T	otal Discharge

Aquaculture Drugs and Chemicals (cont'd)

	#7: Parasite-S	Generic Name: Formalin	(37% formaldehyde)
Reason for use: Control fur	ngus on coho - Saprolegnia		,
☐ Preventative/Prophylactic ☐ As-needed	Total quantity of formulated product per treatment (specify units) 8.2L/2h treatment X 1	Total quantity of formulated (specify units): 8.2L	product used in past year
Date(s) of treatment: 8/28/20			Total number of treatments in past year:
Maximum daily volume of treated water: 88,160 gal	Treatment concentration (specify units): 50 mg/L formalin	Duration and frequency of treat 8.2L (2-hour treat.) X 1treatments X 1	atment(s): pond @359gpm diluted 3.9X to 13.0mg/L
Method of application:	☐ Static Bath ☐ Flow-through	☐ Medicated Feed☐ Other (describe):	
Location in facility chemical was used (check all that apply):	☐ Raceways ☐ Incubation building	■ Ponds □ Off-line settling basin	☐ Other (describe):
Where did water treated with this chemical go?	☐ Discharged w/o treatment☐ Settling basin	☐ Septic System ☐ Publicly owned treatment	Other (describe):
Provide any additional informa	tion about how this chemical was us at 50mg/L. Treated effluent	works used and/or special pollution pre (359gpm) diluted 3.9 times	evention practices during use: into 1,383gpm to 13.0mg/L
Provide any additional informa Drip treatment over 2 hour	s at 50mg/L. Treated effluent	used and/or special pollution pro (359gpm) diluted 3.9 times	into 1,383gpm to 13.0mg/L
Brand Name: Treatment	s at 50mg/L. Treated effluent #8: Parasite-S	used and/or special pollution pro (359gpm) diluted 3.9 times	evention practices during use: into 1,383gpm to 13.0mg/L (37% formaldehyde)
Provide any additional informa Drip treatment over 2 hour Brand Name: Treatment	s at 50mg/L. Treated effluent	used and/or special pollution pro (359gpm) diluted 3.9 times	into 1,383gpm to 13.0mg/L (37% formaldehyde)
Provide any additional informa Drip treatment over 2 hour Brand Name: Treatment Reason for use: Control func Preventative/Prophylactic	#8: Parasite-S gus on coho - Saprolegnia Total quantity of formulated product per treatment:	used and/or special pollution pro (359gpm) diluted 3.9 times Generic Name: Formalin Total quantity of formulated p	into 1,383gpm to 13.0mg/L (37% formaldehyde)
Provide any additional information over 2 hour prip treatment over 2 hour prip treatment. Brand Name: Treatment Reason for use: Control fund preventative/Prophylactic As-needed Date(s) of treatment:	#8: Parasite-S gus on coho - Saprolegnia Total quantity of formulated product per treatment:	Generic Name: Formalin Total quantity of formulated p (specify units): 111.00 litters	into 1,383gpm to 13.0mg/L (37% formaldehyde) roduct used in past year Total number of treatments in past year: 1
Provide any additional information over 2 hour prip treatment over 2 hour prip treatment. Brand Name: Treatment Preatment Preventative/Prophylactic As-needed Preatment: 10/4/20 Maximum daily volume of reated water:	#8: Parasite-S gus on coho - Saprolegnia Total quantity of formulated product per treatment: 11.0L/2h treatment X 1 day Treatment concentration (specify units):	Generic Name: Formalin Total quantity of formulated p (specify units): 111.00 litters	into 1,383gpm to 13.0mg/L (37% formaldehyde) roduct used in past year Total number of treatments in past year: 1 ment(s):
Provide any additional information over 2 hour Drip treatment over 2 hour Brand Name: Treatment Reason for use: Control fund Preventative/Prophylactic As-needed Date(s) of treatment: 14/20 Maximum daily volume of reated water: 115,200 gal	#8: Parasite-S gus on coho - Saprolegnia Total quantity of formulated product per treatment: 11.0L/2h treatment X 1 day Treatment concentration (specify units): 50 mg/L Static Bath	Justin and frequency of treat 11.0 L (2-hour treat.) X 1treatment X 1 p Medicated Feed Other (describe):	into 1,383gpm to 13.0mg/L (37% formaldehyde) roduct used in past year Total number of treatments in past year: 1 ment(s):

- If a water-borne treatment was used during the calendar year, Permittees must include detailed records/calculations as an attachment to this Annual Report in order to demonstrate how the maximum effluent concentrations of solution and active ingredient were calculated for each chemical.
- EPA recognizes that water-borne treatments may vary in the volume of the vessels treated, concentration, quantity of product, etc. Permittees must provide the information listed in the following tables for a reasonable worst case (i.e., maximum effluent concentration) scenario, not for each individual treatment.
- Permittees must submit this information and calculate the maximum effluent concentration for each water-borne chemical used during the past calendar year.
- See also Appendix D for the Chemical Log Sheet.

Static Bath Treatments		
Tank Volume		Liters
Desired Static Bath Treatment Concentration		1000
Volume of Product Needed		µg/l
		Liters Produc
Maximum Effluent Concentration of:	Solution:	
1) Solution and 2) Active Ingredient	Active Ingredient:	Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day		Specify Units
Maximum % of Facility Discharge Treated		Specify Offics
	% of ⁻	Total Discharge
Treatment 7 Flow-	-Through Treatments	
Tank Volume	1,189,306	Liters
Calculated Flow Rate	1,359	Liters/Minute
Duration of Treatment	120	Minutes
Desired Flow-Through Treatment		Minutes
Concentration of Product	50	μg/L
Amount of Product to Add Initially	0	Liters Product
Amount of Product to Add During Treatment	68.3	Liters Product
	00.3	mL/Minute
Total Volume of Product Needed	8.2 liters	Liters Product
Maximum Effluent Concentration of:	Solution: 13.0 mg/L Formalin	
1) Solution and 2) Active Ingredient	Active Ingredient: 4.8 mg/L Formaldehyde	Chocify III:
Minimum Volume of Total (treated + untreat-	The state of the s	Specify Units
ed) Water Discharged from the Facility per day	2,927,520 gallons per day	
20 60 to 500ml	, , , , , , , , , , , , , , , , , , , ,	Specify Units
Maximum % of Facility Discharge Treated	2.94%	
		otal Discharge

- If a water-borne treatment was used during the calendar year, Permittees must include detailed records/calculations as an attachment to this Annual Report in order to demonstrate how the maximum effluent concentrations of solution and active ingredient were calculated for each chemical.
- EPA recognizes that water-borne treatments may vary in the volume of the vessels treated, concentration, quantity of product, etc. Permittees must provide the information listed in the following tables for a reasonable worst case (i.e., maximum effluent concentration) scenario, not for each individual treatment.
- Permittees must submit this information and calculate the maximum effluent concentration for each water-borne chemical used during the past calendar year.
- See also Appendix D for the Chemical Log Sheet.

Static Bath Treatments			
Tank Volume		Liters	
Desired Static Bath Treatment Concentration		Litters	
Volume of Product Needed		μg/L	
		Liters Product	
Maximum Effluent Concentration of:	Solution:		
1) Solution and 2) Active Ingredient	Active Ingredient:	Specify Units	
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day		Specify Units	
Maximum % of Facility Discharge Treated		opeany office	
	% of	Total Discharge	
Treatment 8 Flow-	Through Treatments		
Tank Volume	1,189,306	Liters	
Calculated Flow Rate	1,817	Liters/Minute	
Duration of Treatment	120	Minutes	
Desired Flow-Through Treatment	50	, midees	
Concentration of Product	50	μg/L	
Amount of Product to Add Initially	0		
Amount of Product to Add D	0	Liters Product	
Amount of Product to Add During Treatment	91.7	mL/Minute	
Total Volume of Product Needed	11.0 liters	Liters Product	
Maximum Effluent Concentration of:	Solution: 15.1 mg/L Formalin		
1) Solution and 2) Active Ingredient	Active Ingredient: 5.6 mg/L Formaldehyde	Specify Units	
Minimum Volume of Total (treated + untreat-	5 and the major to maid only do	opecity office	
ed) Water Discharged from the Facility per day	2,927,520 gallons per day		
Maximum 0/, of Equility Disable T		Specify Units	
Maximum % of Facility Discharge Treated	3.94%		
	% of ⁻	Total Discharge	

Aquaculture Drugs and Chemicals (cont'd)

I 5			
	9: Parasite-S	Generic Name: Formalin	ı (37% formaldehyde)
Reason for use: Control fur	gus on coho - Saprolegnia		
☐ Preventative/Prophylactic ☐ As-needed	Total quantity of formulated product per treatment (specify units) 9.8L/2h treatment X 1	Total quantity of formulated (specify units): 9.8 L	product used in past year
Date(s) of treatment: 9/21/20			Total number of treatments in past year:
Maximum daily volume of treated water: 207,120 gal	Treatment concentration (specify units): 50 mg/L formalin	Duration and frequency of trea 9.8L (2-hour treat.) X 1treatments X 1	atment(s); pond @863gpm diluted 2.2X to 23.1mg/L
Method of application:	☐ Static Bath ☐ Flow-through	☐ Medicated Feed☐ Other (describe):	
Location in facility chemical was used (check all that apply):	☐ Raceways ☐ Incubation building	Ponds Off-line settling basin	Other (describe):
Where did water treated with this chemical go?	☐ Discharged w/o treatment☐ Settling basin	☐ Septic System ☐ Publicly owned treatment	☐ Other (describe):
Provide any additional informa	tion about how this chemical was u	works used and/or special pollution pro (863gpm) diluted 2.2 times	evention practices during use:
(check all that apply): Provide any additional informa Drip treatment over 2 hour Brand Name:		used and/or special pollution pr	evention practices during use: s into 1,872gpm to 23.1mg/L
Provide any additional informa Drip treatment over 2 hour	tion about how this chemical was u	used and/or special pollution pro (863gpm) diluted 2.2 times	evention practices during use: s into 1,872gpm to 23.1mg/L
Provide any additional informa Drip treatment over 2 hour Brand Name:	tion about how this chemical was u	used and/or special pollution pro (863gpm) diluted 2.2 times	s into 1,872gpm to 23.1mg/L
Provide any additional informa Drip treatment over 2 hour Brand Name: Reason for use:	tion about how this chemical was used to sat 50mg/L. Treated effluent	ised and/or special pollution pro (863gpm) diluted 2.2 times Generic Name:	s into 1,872gpm to 23.1mg/L
Provide any additional informa Drip treatment over 2 hour Brand Name: Reason for use: Preventative/Prophylactic As-needed	tion about how this chemical was used to sat 50mg/L. Treated effluent	ised and/or special pollution pro (863gpm) diluted 2.2 times Generic Name:	roduct used in past year Total number of treatments in past year:
Provide any additional informa Drip treatment over 2 hour Brand Name: Reason for use: Preventative/Prophylactic As-needed Date(s) of treatment:	tion about how this chemical was used at 50mg/L. Treated effluent Total quantity of formulated product per treatment: Treatment concentration	sed and/or special pollution pro (863gpm) diluted 2.2 times Generic Name: Total quantity of formulated p (specify units):	roduct used in past year Total number of treatments in past year:
Provide any additional informa Drip treatment over 2 hour Brand Name: Reason for use: Preventative/Prophylactic As-needed Date(s) of treatment: Maximum daily volume of reated water:	Total quantity of formulated product per treatment: Treatment concentration (specify units):	Generic Name: Total quantity of formulated p (specify units): Duration and frequency of treat	roduct used in past year Total number of treatments in past year:

- If a water-borne treatment was used during the calendar year, Permittees must include detailed records/calculations as an attachment to this Annual Report in order to demonstrate how the maximum effluent concentrations of solution and active ingredient were calculated for each chemical.
- EPA recognizes that water-borne treatments may vary in the volume of the vessels treated, concentration, quantity of product, etc. Permittees must provide the information listed in the following tables for a reasonable worst case (i.e., maximum effluent concentration) scenario, not for each individual treatment.
- Permittees must submit this information and calculate the maximum effluent concentration for each water-borne chemical used during the past calendar year.
- See also Appendix D for the Chemical Log Sheet.

Static Bath Treatments		
Tank Volume		Liters
Desired Static Bath Treatment Concentration		Liters
Volume of Product Needed		μg/L
		Liters Product
Maximum Effluent Concentration of:	Solution:	
1) Solution and 2) Active Ingredient	Active Ingredient:	Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day		Specify Units
Maximum % of Facility Discharge Treated		Specify Office
		% of Total Discharge

	70 61	Total Discharge
Treatment 9 Flow	-Through Treatments	
Tank Volume	1,189,306	Liters
Calculated Flow Rate	3,267	Liters/Minute
Duration of Treatment	120	Minutes
Desired Flow-Through Treatment Concentration of Product	50	μg/L
Amount of Product to Add Initially	0	Liters Product
Amount of Product to Add During Treatment	81.7	mL/Minute
Total Volume of Product Needed	9.8 liters	Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution: 23.1 mg/L Formalin Active Ingredient: 8.5 mg/L Formaldehyde	Specify Units
Minimum Volume of Total (treated + untreat- ed) Water Discharged from the Facility per day	3,041,280 gallons per day	Specify Units
Maximum % of Facility Discharge Treated	6.81% % of T	otal Discharge

Changes to the Facility or Operations

Describe any changes to the	e facility or operations since the last annual repo	ort
None		71 C.

Signature and Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly evaluate and gather the information submitted. Based on my inquiry of the person or persons, who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Printed name of person signing	Title
Michael J. Crewson	Salmonid Enhancement Scientist
Applicant Signature Milael Comm	Date Signed 1/20/20

Submittal Information

Send the complete, signed information, along with any attachments, to the following address:

U.S. EPA Region 10, OWW-191 Washington Hatchery Annual Report 1200 Sixth Avenue, Suite 900 Seattle, WA 98101-3140